

Application No.: 10/761,992

Docket No.: JCLA11796

In The Claims:

Claim 1. (currently amended) A method of fabricating an ~~image~~ image sensor device, comprising:

providing a substrate having a plurality of trenches therein;

forming a first anti-reflective layer on surfaces of the trenches;

filling an insulating layer in the trenches for forming a plurality of shallow trench isolation regions;

forming at least one photo sensitive region within the substrate between two neighboring isolation regions; and

forming a second anti-reflective layer at least covering the photo sensitive region.

Claim 2. (currently amended) The method of fabricating an ~~image~~ image sensor device of claim 1, wherein the material of the first anti-reflective layer is selected from a group consisting of silicon nitride or silicon oxynitride.

Claim 3. (currently amended) The method of fabricating an ~~image~~ image sensor device of claim 1, wherein the step of forming the first anti-reflective layer comprises a chemical vapor deposition method.

Claim 4. (currently amended) The method of fabricating an ~~image~~ image sensor device of claim 1, wherein the material of the second anti-reflective layer is selected from a group consisting of silicon nitride or silicon oxynitride.

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Claim 5. (currently amended) The method of fabricating an ~~image~~ image sensor device of claim 1, wherein the step of forming the second anti-reflective layer comprises a chemical vapor deposition method.

Claim 6. (currently amended) The method of fabricating an ~~image~~ image sensor device of claim 1, wherein the step of forming the photo sensitive region comprises performing an implantation process.

Claim 7. (currently amended) The method of fabricating an ~~image~~ image sensor device of claim 1, further comprising forming a liner layer on the surfaces of the trenches between the steps of providing the substrate and forming the first anti-reflective layer.